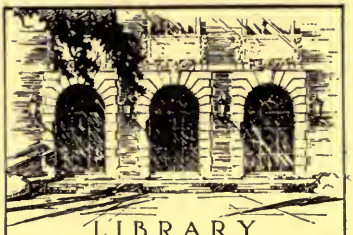

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WHAT FARM FAMILIES SPEND for HOUSING

By Ruth Crawford Freeman

BULLETIN 526 · UNIVERSITY OF ILLINOIS
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Urbana, Illinois April, 1948

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WHAT FARM FAMILIES SPEND FOR HOUSING

By Ruth Crawford Freeman[1]
Assistant Professor of Home Accounts and
Home Economics Research

HOW MUCH to spend for housing is a problem which is facing many farm families today. The ability and willingness to pay for any given quality of housing is, of course, an individual matter, depending on family income, accumulated savings, and the importance of housing in relation to other needs and desires. The choices which some families have made may, however, serve as a guide to others in deciding what proportion of income and savings to allot for housing. This bulletin accordingly reports a study of the income and housing expenditures of a group of Illinois farm families.

SCOPE OF STUDY

This study of farm-family spending for housing is divided into two parts. The first covers the years 1936 thru 1940 and includes a detailed analysis of records kept by 92 farm families. These families had kept accounts continuously during the five-year period, so that a total of 460 annual accounts were used. In this part of the study *spendable income* (net money receipts minus income tax paid) was used as the basis for analysis.

The second part of the study covers a fifteen-year period — 1930 thru 1944. For this period 4,373 annual accounts kept by farm families in 60 counties were analyzed and summarized. The number of families keeping records in any one year varied from 111 in 1930 to 492 in 1940. Altogether, records from 1,448 different families were studied. Included in this larger group were the 92 families whose records were analyzed for the five-year study.

In the fifteen-year study *total family income* was considered. This included not only spendable income, but also the use-value of the farm home and the retail money value of food and fuel produced on the farm and used by the family.

The five-year analysis of spendable income has been given primary emphasis in this bulletin, chiefly for two reasons: First, people

[1] The author is greatly indebted to D. G. Carter, Professor of Farm Structures, Agricultural Engineering Department, for a number of suggestions that were helpful in the preparation of this bulletin.

usually consider their spendable rather than their total family income when deciding on expenditures. Second, since the 92 families had kept records continuously, a detailed analysis of what the same group of families had done over a five-year period was possible.

Most of the figures given here are averages, tho some are also given for individual families in order to show the wide variations in the amounts different families spent for housing.

The fact that the families in this study had more mechanical equipment and utilities in their houses than Illinois farm families as a whole shows their interest in improved housing. Land ownership also was an important goal to them. Fifty-nine percent of the 92 families, as compared with 56 percent[1] of all farm families in the state, owned at least part of the land they operated.

FIVE-YEAR STUDY OF 92 FAMILIES

Amount of Spendable Income

Spendable income is defined as net money receipts minus income tax paid. It is the amount of cash available for living and saving. Altho noncash income (use-value of the house and money value of farm-furnished food) is an important part of farm-family resources, people ordinarily take into account only their net cash income, or spendable income, when contemplating housing expenditures.

Table 1. — NUMBER OF FAMILIES in Each of Four Spendable-Income Groups, Same 92 Farm Families, 1936-1940

Year	Number of families with incomes—			
	Under $1000	$1000-$1999	$2000-$2999	$3000 and over
1936	18	39	19	16
1937	14	38	25	15
1938	17	34	19	22
1939	14	37	13	28
1940	12	31	26	23
Average	15	36	20	21

In the five-year study of 92 families, therefore, only spendable income was considered. The analysis is based on continuous records for the years 1936 thru 1940. This period was chosen because it was intermediate between the years of extremely high and extremely low

[1] U. S. Census report for Illinois, 1940.

income, and did not include the war period, with its limited supply of civilian goods and restricted building.

The 92 families were divided into four groups on the basis of annual spendable income: Group 1 had incomes under $1,000; Group 2, from $1,000 to $1,999; Group 3, from $2,000 to $2,999; and Group 4, $3,000 and over. The number of families in each group did not, of course, remain the same thruout the five years (Table 1). The families in the lowest-income groups tended to shift to the two higher-income groups during these years of increasing income.

When all 92 families were considered, the spendable income per family during the five years averaged $2,237 a year. The average ranged from $2,009 in 1936 to $2,493 in 1940.

Characteristics of Housing

The housing of the group of 92 families may be briefly described as follows:

Age. About half the houses were more than 45 years old; not quite 10 percent were less than 15 years old; the average age was 47 years. In age, the houses were representative of rural-farm houses in the state as a whole, as shown by Census figures for 1940.

Size. The houses averaged 8 rooms. About one-third had 9 to 14 rooms. Those occupied by the lowest-income families (Group 1) averaged 6.3 rooms. On the whole, the 92 houses were larger than the average for Illinois. According to a survey of the entire state, farm houses average 6 rooms. About one-fourth have fewer than 5 rooms and one-fourth have 8 rooms or more.

Occupancy. The most usual number of rooms per person was two or more. This is more than for Illinois as a whole. The usually accepted ratio for adequate housing is one room per person.

Equipment. The houses were better equipped than Illinois farm homes generally, as indicated by the following figures:

Convenience	*Percent of 92 farm houses having item*	*Percent of Illinois farm houses having item*[1]
Electricity	93	38
Mechanical refrigerator	77	20
Central heating	76	23
Running water	62	16
Bathtub or shower	60	13
Electricity, water supply, bath, and central heat	51	..

[1] U. S. Census report for Illinois, 1940.

Money Expenditure for Housing

For this group of 92 families the cash outlay for housing, including repairs, improvements, and new houses, averaged $247 per family a year,[1] or 11 percent of the spendable income.[2] This 11 percent included 2 percent for repairs, 3 percent for new houses, and 6 percent for improvements, including structural additions to the building or installation of such items as storm windows, electricity, or running water, which were not replacements.

The amount spent for housing varied widely with income level. The families in the lowest income group (less than $1,000) spent an average of $37 a year, or $185 for the five years. The families on the $2,000-$2,999 level spent $223 a year, or an average of $1,115 a family during the five years, while families making $3,000 or over spent, as an average, $629 annually (Table 4).

Table 2. — NUMBER OF IMPROVEMENTS Made in Houses of 92 Farm Families During Five Years 1936-1940; Grouped According to Cost of Job and Income of Family

(Four new houses included)

Range in amount spent per job	Total number of improvements made where annual spendable incomes averaged—				
	Under $1000 (Group 1)	$1000-$1999 (Group 2)	$2000-$2999 (Group 3)	$3000 and over (Group 4)	All families
0-$ 99	3	13	15	15	46
$100-$199	..	11	8	10	29
$200-$299	2	2	8	6	18
$300-$399	1	..	4	2	7
$400-$499	..	..	5	2	7
$500-$999	1	2	5	3	11
$1000 and over	..	1	6[a]	4[b]	11
Total number of improvements	7	29	51	42	129
Number of families making improvements	5	18	23	18	64

[a] One new house is included. [b] Three new houses are included.

These averages do not mean that all families benefited equally from housing improvements. Altho more than two-thirds of the families

[1] To put owner and tenant families on a comparable basis in figuring cost of housing, tenants' accounts were "weighted" to include estimated amounts for landlords' expenses, equivalent to the money spent for housing by owner-occupants in the same income group. An equivalent amount was added to spendable income.

[2] Real-estate taxes and fire insurance on the house were recorded in farm business expenses, so are not included here.

made at least one improvement during the five years, over half of the improvements cost less than $200. Most of the improvements were made by families in the two higher-income groups (Table 2).

Seven families did major remodeling which cost $1,000 or more per job; and four families built new houses, costing $3,215 to $6,352 each (Table 3). Thus the major part of the expenditure was made by 12 percent of the families.

Table 3. — AMOUNT AND SOURCE of Money Spent for Eleven Major Housing Improvements by 92 Families, 1936-1940
(Including four new houses)

Case No.	Year	Money spent	Source of money	Other resources	Family's spendable income per year
Four new houses					
1	1939	$3 215	Savings	Lumber from old house	$2000-$2999
2	1938	6 352	Gift	Old house torn down	3000 and over
3	1938	4 700	Borrowed	.....	3000 and over
4	1938	3 945	Fire insurance and savings	.....	3000 and over
Seven major remodeling jobs costing $1000 or more					
5	1936	$1 947	Current income	.....	$2000-$2999
6	1938	1 150	Current income	.....	2000- 2999
7	1938	1 996	Current income and borrowed	.....	2000- 2999
8	1939	2 101	Current income	.....	2000- 2999
9	1937	1 393	Borrowed	.....	2000- 2999
10	1939	1 557	Borrowed	.....	1000- 1999
11	1940	1 018	Savings	.....	3000 and over

Sources of money used in building and remodeling. Only one family out of the four that built a new house borrowed money for the purpose (Table 3). One built with the insurance money received after a fire loss. Of the other two families, one used savings and one received the money as a gift. Three families out of the seven that spent $1,000 or more for remodeling borrowed for the purpose, while the rest used current income or savings.

In the whole group of 1,448 families studied during the fifteen-year period only two families borrowed money to build a house. Two families of the thirteen who built (including the four in the 92-family group) used payments from insurance companies for fire losses. The other nine built from savings or inheritances.

Expenditures Related to Housing

Furnishings and equipment. The amount which the 92 families spent for furnishings and equipment during the five years varied directly with the income level. The families in the lowest-income group (less than $1,000) spent $49 a year; those in the highest-income group ($3,000 and over) spent $152 (Table 4). In the group as a whole, expenditures for furnishings and equipment averaged 5 percent of the income.

Table 4. — YEARLY CASH OUTLAY for Housing and Related Purposes by Four Spendable-Income Groups, 92 Farm Families, 1936-1940

(Exclusive of taxes and insurance)

Expense	Average amounts of money spent where annual spendable incomes averaged—			
	Under $1000 (Group 1)	$1000-$1999 (Group 2)	$2000-$2999 (Group 3)	$3000 and over (Group 4)
Housing[a]	$37	$126	$223	$629
Furnishings and equipment	49	96	134	152
Operating[b]	91	148	214	254

[a] Weighted to include expense on tenant houses in each group. Tenant expense was figured on the same basis as owner expense.

[b] These figures cover more than operating costs, since expenditures for household supplies and paid services are included. However, about two-thirds of the expense is for heating, electricity, refrigeration, and telephone.

Operating the house. Operating expenses did not vary between income levels as greatly as did housing repairs and improvements (Table 4). There is less opportunity for variation in the fairly fixed costs of fuel, electricity, and telephone service.

Families in Groups 1 and 2 (the two lowest-income groups) used 12 percent and 9 percent, respectively, of their spendable income to operate their houses (Table 5). The high operating costs were due to the fact that many of the houses were larger than necessary. Repair and upkeep for these large houses took 5 percent of the spendable income in Group 1, and 8 percent in Group 2. As a result of all these expenses, families who had less than $2,000 annual income, and consequently only a small amount to spend on housing, had little left over for improvements. This is perhaps one reason why only 13 percent of the families in the lowest-income group and 22 percent of those in the next lowest group had running water, central heating, and electricity; whereas 90 percent of the families in the two highest-income groups had these conveniences. Even tho the houses in the two higher-income

groups were also large, the families could better manage the high operating cost.

Total housing and related costs. Families with less than $3,000 average spendable income used 23 percent of it for housing and the related costs of furnishings, equipment, and operation (Table 5 and

Table 5. — HOUSE VALUES and Other Items Shown in Relation to Annual Spendable Income, 92 Farm Families, 1936-1940

Item	Average values and percentages where annual spendable income averaged—			
	Under $1000 (Group 1)	$1000-$1999 (Group 2)	$2000-$2999 (Group 3)	$3000 and over (Group 4)
Estimated value of house	$3 088	$3 370	$3 968	$4 567
Use value	185	202	238	274
	perct.	*perct.*	*perct.*	*perct.*
Proportion of houses with running water, furnace, and electricity	13	22	90	90
Spendable income used for—				
Repairs and improvements, including new houses	5	8	9	14
Furnishing and equipment	6	6	5	3
House operation	12	9	9	5
Total housing and related costs	23	23	23	22
Automobile transportation	12	10	8	5
Savings	16	18	23	37

Fig. 1). Families making $3,000 or over used 22 percent as an average. This means that the average expenditure ranged from $177 in the lowest-income group to $1,035 in the highest group.

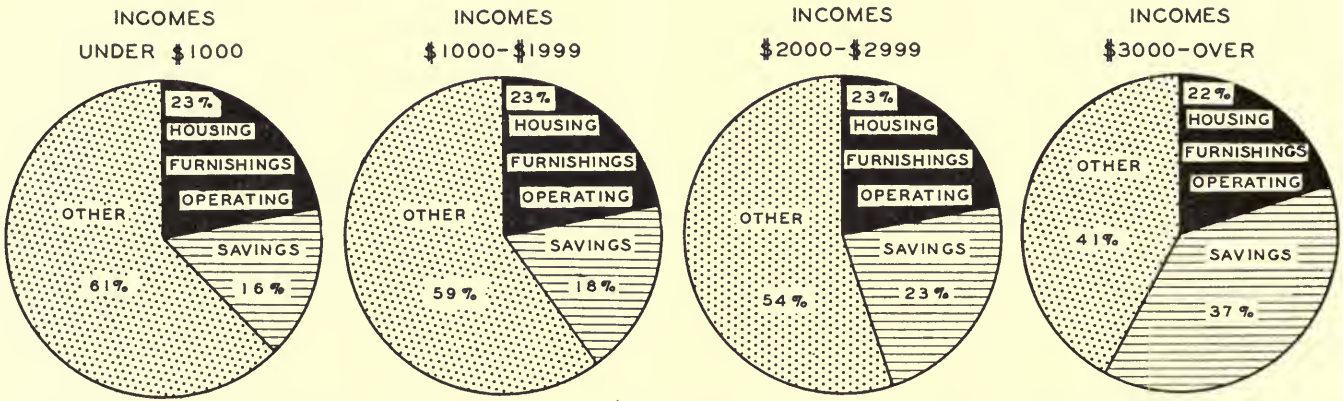
Comparison of Housing Costs and Other Uses of Income

As an average for the entire group of 92 families during the five-year period, housing and related costs were second only to savings in the family budget. Families in the two lower-income groups put more of their money into housing and related costs than into savings (Fig. 1).

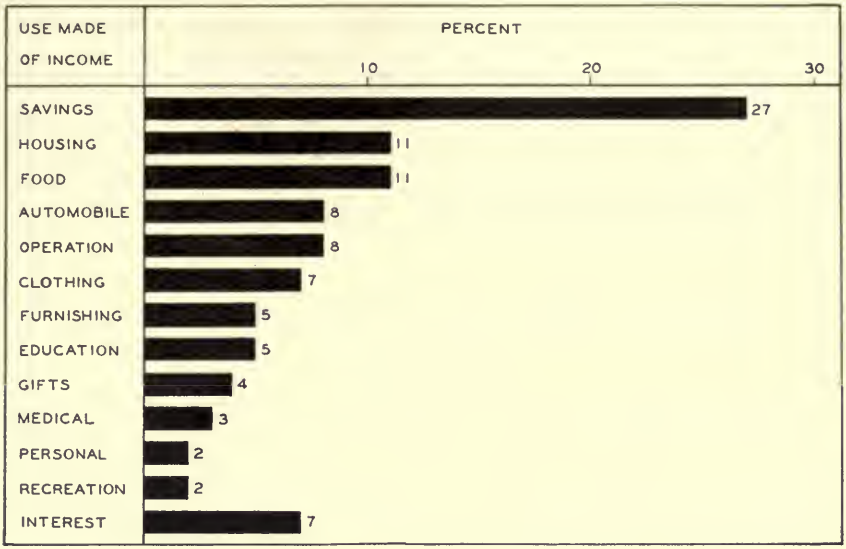
Average cash outlay for housing (not including expenditures for operation and furnishings) was about equal to the amount spent for purchased food (Fig. 2).[1] Families with spendable incomes of less than $1,000, however, spent more for food than for housing.

Automobile. The average housing expense for the entire group was greater than that part of the automobile expense charged to family use. In the two lower-income groups, however, automobile expenses took a greater proportion of the income than did housing (Table 5).

[1] Measured by money value, only one-third of the food consumed was purchased. The rest was produced on the farm.



How 92 Illinois farm families on four levels of spendable income distributed that income between (1) housing, furnishings, and operating, (2) savings, and (3) all other expenditures. Figures cover the years 1936-1940. Fig. 1



How 92 Illinois farm families used their spendable income during 1936-1940. Average spendable income was $2,237. Housing costs include 2 percent for repairs, 6 percent for improvements, and 3 percent for new houses. "Food" includes only *purchased* food. "Gifts" include both contributions to church and welfare and gifts to relatives and other individuals. Fig. 2

This is true even tho only half the automobile expense is listed under family spending, the other half being charged to the farm business.

If housing expenditures were viewed in the same way as automobile expenses — that is, as a joint necessity of the farm business and the home — and divided logically between the two interests, some farm families might feel justified in putting more of their income and savings into housing. For many farm families the farm house is as important to the farm business as is the automobile: it is generally used as the business center; hired help often live and eat there; and home-produced food is processed there.[1]

Savings. Twenty-seven percent of the average income went into savings (Fig. 2).[2] Payment of mortgages on land (part of sav-

[1] If one or more rooms in the house are used entirely for business purposes (as for an office or for sleeping quarters for a hired man) a corresponding proportion of the housing expense may be deducted in figuring income tax.

[2] Savings included payments on purchases of land, debt retirement in excess of borrowing, stocks and bonds, life-insurance premiums, and net change in bank balance at end of year over that at the beginning of the year. Money invested in the farm business or net changes in the value of farm business are not included here under savings.

ings) is one of the main competing uses of spendable income when housing expenses are considered. Most owner-operators want to pay off mortgages on the land before making housing improvements. Wide fluctuations in farm income from year to year have created a feeling of insecurity and the desire to own land free of debt. The impossibility of counting on a steady income from the farm has also influenced many farm families to save in advance for housing improvements rather than to borrow for the purpose.

FIFTEEN-YEAR STUDY OF 1,448 FAMILIES

Family Income

An important part of the farm family's resources is its noncash income. This includes the retail value of food and fuel produced on the farm and used by the family, and also the use-value of the farm house, which is considered to be 6 percent of the estimated value.[1]

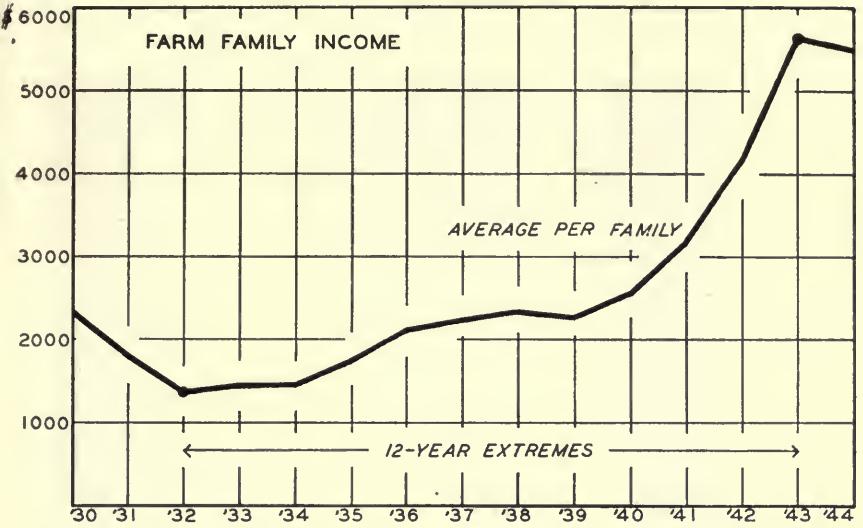
In the fifteen-year study, total income — both cash and noncash — was considered. This total income is referred to here as "family" income. Since it includes spendable income plus the money value of food and fuel and the use-value of the house, it is comparable with the income of nonfarm families.

Average family income varied greatly thruout the period (Fig. 3). It was more than four times as much in 1943 ($5,752) as in 1932 ($1,375). During the first eleven years of the study, which were prewar years, it averaged $2,149 a year. During the four war years it jumped to $4,573. For the entire fifteen years, it averaged $2,688.

Annual Cost of Housing

If 6 percent of the estimated value of a house is considered a noncash part of farm-family income, the same amount must also be counted as a noncash housing cost. Thus, in the fifteen-year study, annual cost of housing included the use-value of the house as well as expenses for repairs and improvements. The average use-value of all houses in the group for the entire fifteen years was $233 (based on estimates made by the families themselves). The average value of the houses during that period was $3,883.

[1] For the tenant operator the 6 percent is classed as the rental value of the house, use of the house being part of his compensation for operating the farm. In the case of the owner operator, also, it is estimated that the use of the house is worth to him yearly 6 percent of its current value (this includes 5 percent for interest on the investment and 1 percent for real-estate taxes and fire-insurance payments that had been paid out of farm income).

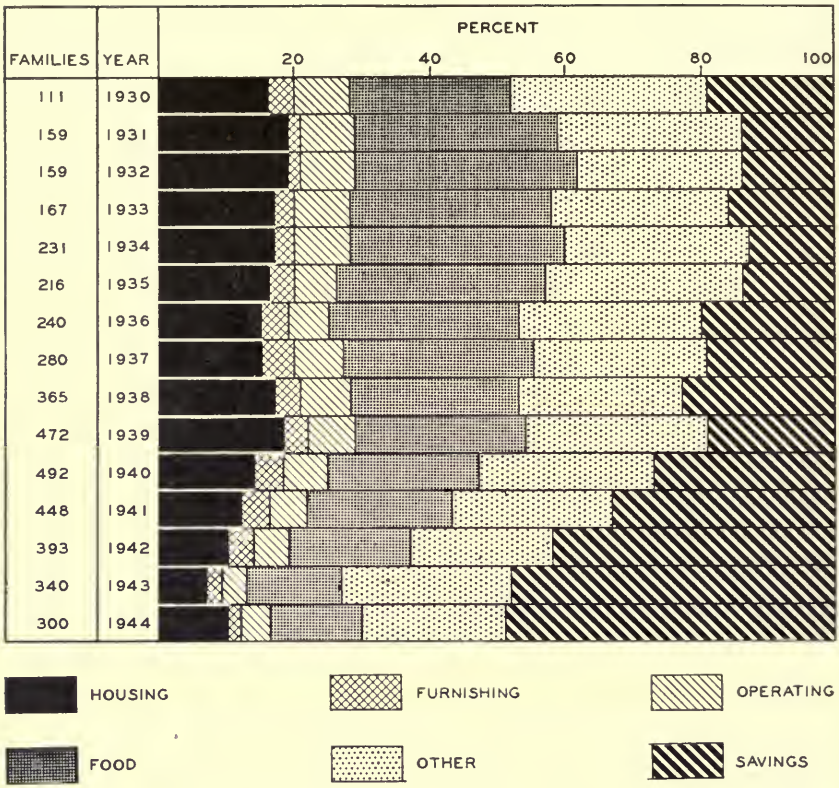


Average family income of a varying number of Illinois farm families keeping accounts from 1930 thru 1944. Year of lowest income was 1932 ($1,375). Year of highest income was 1943 ($5,752). Included in the income is the use-value of the house and the retail value of food and fuel produced on the farm. See Fig. 4 for number of families included each year. Fig. 3

Prewar years. During the eleven prewar years the average use-value of the houses as reported in the yearly records was $226. This was 10.5 percent of the average family income during that period. Annual cost of repairs and improvements averaged $115, or 5.4 percent. This added to the imputed use-value of $226 equaled $341, or nearly 16 percent of the annual family income (Fig. 4). This is considerably less than the 20 percent that it is generally assumed urban families can spend for housing.

War years. During the four war years many more improvements might have been made if the families had continued to spend the same *percentage* of income on repairs and improvements as they spent before the war. But during the war years the purchase of building materials was limited by shortages and regulations. While more dollars went into repairs and improvements than during the prewar years, income increased much more sharply than these expenditures and the percentage of family income spent for housing declined.

The use-value of the house also amounted to a smaller percentage of the family income than before the war, since the estimated house value did not increase as rapidly as income. In 1943 the total cost of



Percentage of total family income used year by year for housing, furnishings, house operation, food, and savings, by 1,448 Illinois farm families who kept accounts during the years 1930-1944. The graph is based on a total of 4,373 annual accounts. **Fig. 4**

housing — including both actual expenditures and use-value — was as low as 7 percent of the income. While the percentage of income used for housing declined during the war, the percentage put into savings greatly increased (Fig. 4).

Possible postwar expenditure. By using a large share of their wartime savings for the reduction of mortgages on their farms, these families do not now have as heavy current mortgage payments as formerly. Thus many of them now feel free to spend more of their accumulated savings and current income for housing than they were able to spend during, or even before, the war.

A family's total needs and goals will, of course, determine the amount that they feel they can or should spend for housing. However,

one criterion of what it is reasonable to spend for this purpose may be drawn from a rather widely accepted "rule of thumb" often used for estimating what urban families are justified in spending. This rule is that an urban family can usually afford to spend for a house twice the family's annual income.[1]

The income of farm families usually varies more widely than the income of most urban families. It does appear logical, however, that at least twice the average annual income over a ten- or twelve-year period would be a fair amount for a farm family to invest in housing. A period that long would probably take in a complete business cycle, including years of both high and low income. Since the farm home is so important to the farm business, even more than twice the annual income might justifiably be spent.

While twice the annual income would result in good housing for farm families with average or above-average incomes, low-income families would not be able to build satisfactory houses on that basis. The problem of enabling such families to acquire acceptable housing for considerably less cash outlay needs study.

Timing of Housing

Families can, of course, get the most for their money if they wait until prices are low to build or remodel. But when costs are down, income is likely to be low, too. The best solution is often to save during years of high income and build when prices are low.

Yet families usually get the most enjoyment from a house while the children are growing up. If a family waits until prices are lowest, building will often be delayed past the time when the family would get the most good from the house. The children may be grown before a new house is built or major improvements made on the old house.

The weight to give the enjoyment of a comfortable, convenient house when deciding the best time to build is, of course, an individual problem. It is, however, an important consideration in the apportionment of income for housing.

SUMMARY

The figures presented here show what two groups of Illinois farm families spent for housing during the years 1930-1944. One group included 1,448 families that kept accounts for either the entire fifteen-year period or for some part of that period. The other group, selected

[1] Financing the home. University of Illinois Small Homes Council. A1.3. April 24, 1945.

out of the larger group, included 92 families that kept accounts continuously during the five years 1936 thru 1940.

Two ways of calculating housing costs are used: (1) the actual cash spent each year for this purpose; (2) actual cash expenditures *plus* the use-value of the house.

In the five-year study (1936-1940) the *cash outlay* for repairs, new houses, and improvements averaged $247, or 11 percent of the spendable income a year. Expenditures varied widely with income level. Families with less than $2,000 spendable income a year were unable to use enough of their money to provide themselves with adequate housing, according to present-day standards. Total cash spent for housing and related costs (furnishing and operation) averaged 23 percent of the spendable income for families with incomes under $3,000; and 22 percent for families making above that amount.

In the fifteen-year study the *total cost* of housing, including both cash expenditures and the use-value of the farm house, was recorded. During the eleven prewar years housing costs figured in this way took $341, or 16 percent of the total family income (net cash income plus the use-value of the house and the retail value of home-used food and fuel produced on the farm). This was less than what is ordinarily considered a fair proportion of income for urban families to spend on housing (20 percent).

During the four war years the percentage of family income used for housing was considerably less than previously, while savings were considerably greater. A combination of wartime shortages of materials and labor and the much greater farm income during the war years account for this shift, a shift that will be modified somewhat if these families ultimately use for housing some of the money temporarily put into savings but earmarked for postwar spending for housing improvements.

What any one farm family can comfortably spend for housing is a matter of very personal calculations; but it is clear that with the wide variations that take place in the income of farm people, the money they can use for this purpose has to be figured on the basis of their income thru a complete business cycle of ten or twelve years, not on three or four lean years or three or four high years.

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